FUERTE RANCH ESTATES

BIOLOGICAL RESOURCES REPORT GPA 03-006, REZ 03-017, TM 5343RPL¹, ER 03-14-060

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Fuerte Ranch Estates Biological Resources Report

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SUMMARY OF FINDINGS

This report describes existing biological conditions on the Fuerte Ranch Estates project site and provides the U.S. Army Corps of Engineers (Corps), U.S. Fish and Wildlife Service (USFWS), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game (CDFG), County of San Diego (County), and project applicant with information necessary to assess impacts to biological resources under County ordinances and codes, the California Environmental Quality Act (CEQA), federal and state Endangered Species acts (ESAs), federal Clean Water Act, and California Fish and Game Code.

The proposed project is development of 40 single-family residences with associated infrastructure on a 27.3-acre site. The project would connect to the local sewer system in Calle Albara to the southeast via a sewer easement that cuts across a portion of Damon Lane County Park. The site is located immediately north of Damon Lane County Park, south of Fuerte Drive, west of Monte Vista Road, and east of Damon Lane in the unincorporated San Diego County community of Valle de Oro within the Metro-Lakeside-Jamul Segment of the County's Multiple Species Conservation Program (MSCP) Subarea Plan but is outside of any Biological Resource Core Area (BRCA) or the Preapproved Mitigation Area (PAMA).

The project site is the former Hooper Poultry Farms chicken ranch, and much of the site contains hen houses and facilities associated with this intense agricultural operation. Most of the remainder of the property has been used for agricultural practices, but a drainage runs through the site, and several private residences occur within site boundaries. Surrounding land uses include residential development to the north, west, and east and Damon Lane County Park (Open Space Preserve) to the south.

The proposed project would impact approximately 0.91 acre of sensitive habitat, which includes 0.06 acre of freshwater marsh, 0.15 acre of southern willow scrub, less than 0.01 acre of mule fat scrub, 0.14 acre of disturbed wetland, 0.11 acre of disturbed emergent wetland, and 0.45 acre of non-native grassland on and off site.

Implementation of the proposed project would result in permanent impacts to 0.04 acre of habitat under U.S. Army Corps of Engineers (Corps) and California Department of Fish and Game (CDFG) jurisdiction. Temporary impacts would total 0.03 acre of habitat under Corps and CDFG jurisdiction. The wetlands on site were determined not to qualify as Resource Protection Ordinance (RPO) wetlands pursuant to RPO Section 86.602(q)(2)(bb).

No sensitive plant species were observed on site. Two sensitive animal species were observed/detected: Cooper's hawk (Accipiter cooperii) and western bluebird (Sialia mexicana).

There is potential to impact raptor nesting habitat directly or indirectly during construction. In addition, potentially significant indirect impacts to off-site habitat in Damon Lane County Park were also identified from noise.

Mitigation for impacts to non-native grassland would occur through purchase of Tier III mitigation credits from an approved mitigation bank. Mitigation for wetland habitat would occur

through purchase of 0.5 acre of wetland credit at the Rancho Jamul Wetland Mitigation Bank.

Significant indirect impacts related to noise would be reduced to levels below significance with implementation of appropriate mitigation measures.

1.0 INTRODUCTION

This report describes existing biological conditions on the Fuerte Ranch Estates project site and provides the U.S. Army Corps of Engineers (Corps), U.S. Fish and Wildlife Service (USFWS), Regional Water Quality Control Board (RWQCB), California Department of Fish and Game (CDFG), County of San Diego (County), and project applicant with information necessary to assess impacts to biological resources under County ordinances and codes, the California Environmental Quality Act (CEQA), federal and state Endangered Species acts (ESAs), federal Clean Water Act, and California Fish and Game Code.

1.1 PROJECT DESCRIPTION

The proposed project is development of 40 single-family residences on minimum 0.5-acre lots with associated infrastructure (roads, sewer, water and storm water treatment) on a 27.3-acre site. Primary access would be from Fuerte Drive with secondary access from Damon Lane. The project would connect to the local sewer system in Calle Albara to the southeast via a sewer easement that cuts across a portion of Damon Lane County Park. The primarily highly disturbed drainage through the site would be partially realigned and water flow through the site would be maintained within a County flowage easement within the proposed residential lots. Additional easements may be required by other agencies. Within the flowage easement, wetland exotics would be removed and disturbed wetlands enhanced. A 50-foot fuel modification zone (FMZ) would be applied between the project and Damon Lane County Park as approved by the San Miguel Fire Department. The 50-foot wide FMZ along the southern border combined with 50-foot wide fire clearing on the Damon Lane County Park property would result in a 100-foot wide fuel management buffer for homes along the southern property boundary.

1.2 LOCATION

The property is located in the unincorporated community of Valle De Oro in south-central San Diego County, California (Figure 1). Specifically, the property is located south of Fuerte Drive, east of Damon Lane, west of Monte Vista Road, and immediately north of Damon Lane County Park

(Figure 2). The site is located within Section 24, Township 16 South, Range 1 West on the U.S. Geological Survey (USGS) 7.5-minute El Cajon quadrangle map (Figure 2). The property is within the Metro-Lakeside-Jamul segment of the County's Multiple Species Conservation Program (MSCP) Subarea Plan. The property is not within a Biological Resource Core Area (BRCA) and lies outside of any Pre-approved Mitigation Areas (PAMA). Damon Lane County Park is considered to be a PAMA.

1.3 TOPOGRAPHY, SOILS, EXISTING AND SURROUNDING LAND USES

The site is a single, large, primarily flat parcel with elevations ranging from approximately 540 feet above mean sea level (amsl) in the south to 620 feet amsl in the north. A drainage bisects the property from north to south and has cut a small ravine through the south of the site. The remainder of the site contains land occupied by a mostly inactive chicken ranch but also includes disturbed land, previously used for agriculture and developed land where three residences occur.

Three soil series occur on site: Friant fine sandy loam (30 to 50 percent slopes), Placentia sandy loam (2 to 9 percent slopes), and Vista coarse sandy loam (15 to 30 percent slopes; Bowman 1973). Friant sandy loam is derived from metavolcanic rock and can support sensitive native plant species.

The site supports the former Hooper Poultry Farms chicken ranch and much of the site contains rows of hen houses containing mostly disused coops. Surrounding these facilities are storage sheds, machinery, and other evidence of this intense agricultural operation. Most of the remainder of the property has been used for agricultural practices. The drainage that runs through the site is highly disturbed. Several private residences also occur within site boundaries.

Surrounding land uses primarily include single-family residential development to the north, southwest and east; Fuerte Elementary School to the northwest; and Damon Lane County Park (Open Space Preserve) to the south (Figure 3).

2.0 METHODS

2.1 GENERAL BIOLOGICAL SURVEY

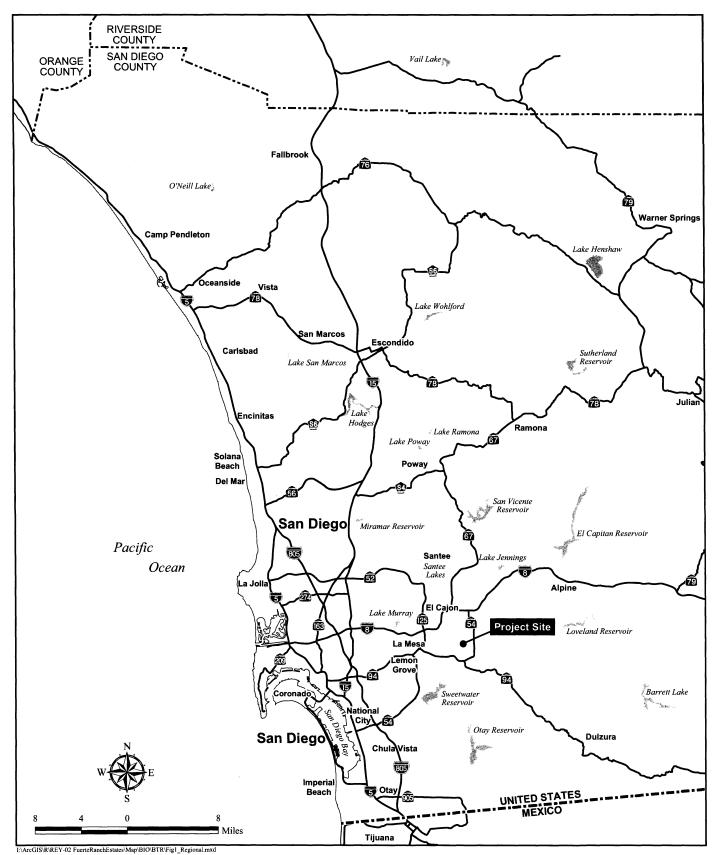
HELIX biologist Kathy Pettigrew conducted a general biological survey of the site on November 2, 2005. The site was surveyed on foot, and vegetation communities were mapped on a 1"=100' scale aerial photograph. All plant species observed were identified in the field or in the laboratory through comparison with identification keys or voucher specimens. Animal species were identified by direct observation or indirectly by detection of calls, scat, tracks, or burrows.

2.2 JURISDICTIONAL DELINEATION

HELIX biologists W. Larry Sward and Stacy Nigro conducted a follow-up general survey and formal jurisdictional delineation on the site on November 8, 2005. All areas with depressions or drainage channels were evaluated for the presence of Waters of the U.S., including jurisdictional wetlands. Each area was inspected according to Corps wetland delineation guidelines. Corps wetland boundaries were determined using the three criteria (vegetation, hydrology, and soils) established for wetland delineations as described within the Wetlands Delineation Manual (Environmental Laboratory 1987). Streambeds and CDFG wetland boundaries were also determined according to current California Fish and Game Code requirements. The site was also assessed for County Resource Protection Ordinance (RPO) wetlands pursuant to the revised RPO (County 2007). On-site wetlands were found not to be RPO wetlands pursuant to RPO Section 86.602(q)(2)(bb). Other factors considered included landscape position and sources of water. References included prior vegetation mapping and topographic maps. A separate jurisdictional delineation report has been prepared (HELIX 2007).

2.3 NOMENCLATURE

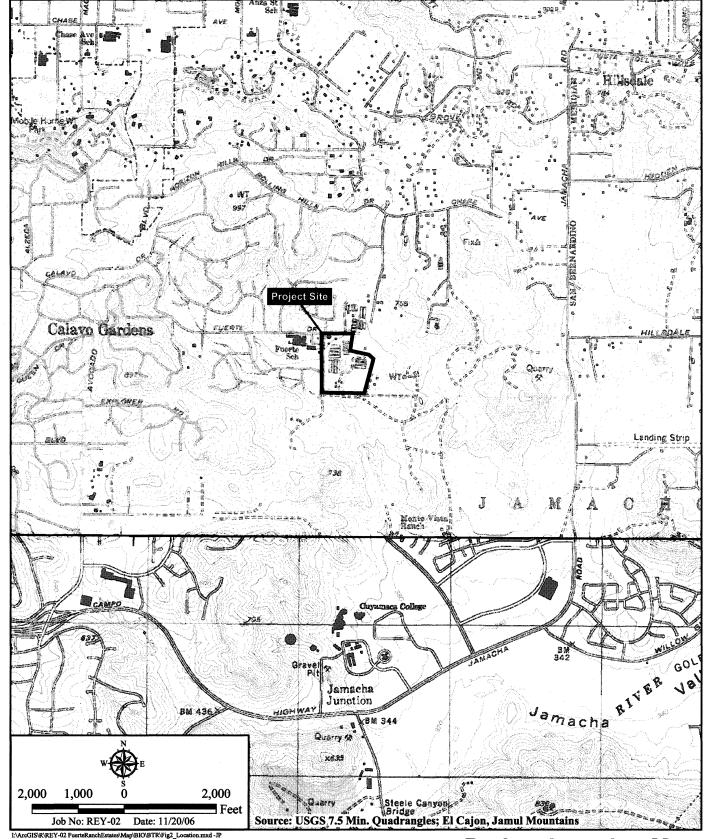
Nomenclature for vegetation communities in this report follows Holland (1986) and Oberbauer



Regional Location Map

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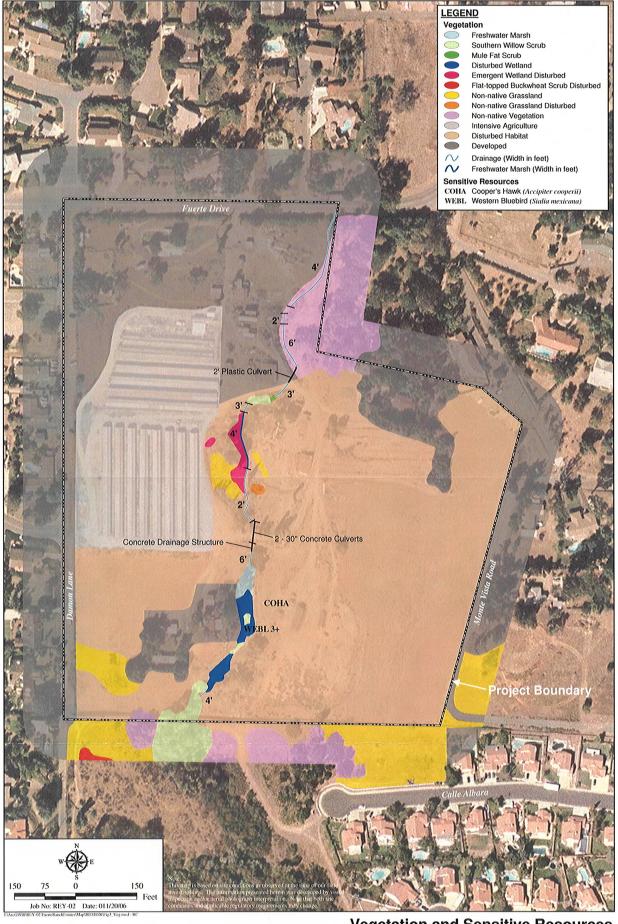


Project Location Map

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Figure 2





(1996). Scientific names of plants follow Hickman, ed. (1993), while common names follow Hickman or the California Native Plant Society ([CNPS] 2006). Animal nomenclature used in this report is taken from American Ornithologists' Union (2004) for birds and Crother (2001) for amphibians and reptiles. Plant species status is taken from CNPS (2006), and animal species status is taken from the USFWS Threatened and Endangered Species System (USFWS 2005).

3.0 RESULTS

3.1 VEGETATION COMMUNITY/HABITAT DESCRIPTIONS

The property supports a drainage, parts of which are unvegetated, and seven vegetation communities as well as disturbed and developed land. Vegetation communities include freshwater marsh, southern willow scrub, mule fat scrub, disturbed wetland, disturbed emergent wetland, non-native grassland, non-native vegetation, and intensive agriculture. (Figure 3; Table 1).

Table 1 EXISTING VEGETATION COMMUNITIES/HABITATS		
VEGETATION COMMUNITY*	ACREAGE	
Tier I		
Freshwater marsh (52410)	0.06	
Southern willow scrub (63320)	0.15	
Mule fat scrub (63310)	< 0.01	
Disturbed wetland (11200)	0.14	
Disturbed emergent wetland (52440)	0.11	
Tier III		
Non-native grassland (including disturbed; 42200)	0.45§	
Other		
Non-native vegetation (11000)	0.60	
Intensive agriculture (18000)	4.27	
Disturbed habitat (11300)	13.57	
Developed (12000)	7.95	
TOTAL	27.30	

^{*}Categories and codes are from Holland (1986) and Oberbauer (1996)

3.1.1 Freshwater Marsh

[§]Existing non-native grassland acreages include 0.40 on site and 0.05 off site

Freshwater marsh is dominated by perennial emergent monocots and occurs along the coast, in coastal valleys near river mouths, and around the margins of lakes and springs. On site, this vegetation community is dominated by southern cattail (*Typha domingensis*), umbrella sedge (*Cyperus involucratus*), and valley red-stem (*Ammannia coccinea*). Freshwater marsh totaling 0.06 acre occurs in two areas on site: a narrow 4-foot wide strip along the channel in the center of the site and a patch at the head of the riparian portion of the drainage in the southern portion of the site. The central marsh is artificially maintained by water continuously pumped from a well in the northwest corner of the site and fed through the remaining chicken ranch operation to the northwest. This was evidenced by vigorously growing cattails present in November 2005 when no water was present in the channel upstream and little rainfall had occurred since the previous spring.

3.1.2 Southern Willow Scrub

Southern willow scrub consists of dense, broad-leaved, winter-deciduous stands of trees dominated by shrubby willows (*Salix* spp.) in association with mule fat (*Baccharis salicifolia*). This vegetation community occurs on loose, sandy, or fine gravelly alluvium deposited near stream channels during flood flows. On site, this vegetation community includes Goodding's black willow (*Salix gooddingii*), large-leaf willow (*Salix laevigata*), shining willow (*Salix lucida*), and mule fat. Southern willow scrub covers 0.15 acre in four small patches along the drainage, one of which extends off site to the south. It is likely that these willows are maintained by the water being fed into the channel by the chicken ranch operation.

3.1.3 Mule Fat Scrub

Mule fat scrub is a depauperate, shrubby riparian scrub vegetation community dominated by mule fat and interspersed with shrubby willows. This vegetation community occurs along intermittent stream channels with a fairly coarse substrate and moderate water table depth. Mule fat scrub occurs in one small patch adjacent to southern willow scrub in the central portion of the site and covers less than 0.01 acre.

3.1.4 Disturbed Wetland

This vegetation community is typically dominated by exotic wetland species that have likely become established following previous disturbance(s), although it may also contain native species. The composition of disturbed wetland is highly variable based on the hydrology, soils, and type and frequency of disturbance. Characteristic plant species in this vegetation community on site include umbrella sedge, curly dock (*Rumex crispus*), bristly ox-tongue (*Picris echioides*), cocklebur (*Xanthium strumarium*), and castor bean (*Ricinus communis*). Disturbed wetland covers 0.14 acre in the southern portion of the site among the willow patches in the channel.

3.1.5 <u>Disturbed Emergent Wetland</u>

Emergent wetland is an herbaceous vegetation community occurring in a historically upland area that has experienced altered hydrology. This vegetation community does not contain indicators of wetland hydrology or hydric soils. On site, runoff from nearby chicken coops has been providing water to this vegetation community, which would not persist once input or runoff from

the chicken coops ceases. Dominant vegetation observed in this habitat on site includes rabbitsfoot grass (*Polypogon monspeliensis*) and common knotweed (*Polygonum arenastrum*); other plant species observed include prickly sow thistle, curly dock, and western jimson weed (*Datura wrightii*). The project site supports 0.11 acre of emergent wetland in the center of the property in proximity to but at an elevation above the drainage, again most likely supported by water runoff from the chicken ranch operation.

3.1.6 Non-native Grassland (including disturbed)

Non-native grassland is a dense to sparse cover of annual grasses often associated with numerous species of showy-flowered native annual forbs. This association occurs on gradual slopes with deep, fine-textured, usually clay soils. Typical species present on site include wild oats (*Avena fatua*), ripgut grass (*Bromus diandrus*), Italian ryegrass (*Lolium multiflorum*), prickly lettuce (*Lactuca serriola*), and wild radish (*Raphanus sativus*). A small area of disturbed non-native grassland was identified east of the drainage. This area consisted primarily of common knotweed and rabbitsfoot grass. A patch of non-native grassland also occurs in the southwestern corner of the site and contains wild oats, ripgut grass, and curly dock. Non-native grassland covers 0.41 acre on site.

3.1.7 Non-native Vegetation

Non-native vegetation consists of cultivated plants that have naturalized into otherwise native habitat areas or that are remnants of previous cultivated land uses. Some of the species that occur in the non-native vegetation on site include Peruvian pepper (*Schinus molle*), Brazilian pepper (*S. terebinthifolius*), and Mexican fan palm (*Washingtonia robusta*). Non-native vegetation occurs in the northeastern corner of the property in proximity to a residence, and in a small patch that extends off site in the south. This vegetation community occupies 0.60 acre of the property.

3.1.8 Intensive Agriculture

The project site previously supported Hooper's Poultry Farm and therefore contains multiple hen houses, outbuildings, and other associated structures. Most of these facilities are non-operational at this time; however, a reduced operation is still maintained in at least one of the hen houses. A total of 4.27 acres of intensive agriculture exist on site.

3.1.9 Disturbed Habitat

Disturbed habitat includes unvegetated or sparsely vegetated areas, particularly where the soil has been heavily compacted by prior development or where agricultural lands have been abandoned. It is generally dominated by non-native weedy species that adapt to frequent disturbance or consist of dirt trails and roads. Disturbed habitat on site includes several dirt roads as well as areas that appear to have been used in the past for agriculture but currently support little to no vegetation. Other disturbed portions of the site appear to be regularly disked. Where vegetation is present, plant species include mustard (*Brassica* sp.), prickly lettuce, Russian thistle (*Salsola tragus*), tree-of-heaven (*Ailanthus altissima*), and castor bean. Disturbed habitat is the dominant vegetation community on site and covers approximately 13.57 acres.

3.1.10 <u>Developed</u>

Developed land is that where either permanent structures and/or pavement have been placed or maintained landscaping occurs. On site, developed land covers 7.95 acres and includes several residences and associated ornamental vegetation.

3.2 SENSITIVE VEGETATION COMMUNITIES

Six vegetation communities on site are considered County sensitive: freshwater marsh, southern willow scrub, mule fat scrub, disturbed wetland, disturbed emergent wetland, and non-native grassland.

3.3 PLANTS

A list of plant species observed on site is provided in Appendix A. The highly disturbed character of the site has reduced the plant diversity on site to mainly disturbance-related species.

3.3.1 Sensitive Plant Species Observed

No listed or sensitive plant species were observed on site, and even though surveys were performed at times of year to when detection of sensitive annual plant species might not be possible, few (if any) are expected to occur on site due to the high level of disturbance present throughout the site.

3.3.2 Sensitive Plant Species with Potential to Occur on Site

Sensitive plant species that have potential to occur on site are listed below in Table 2.

Table 2 LISTED OR COUNTY SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR				
SPECIES STATUS* POTENTIAL TO OCCUR				
San Diego thorn-mint (Acanthomintha ilicifolia)	FT/SE CNPS List 1B.1 MSCP Narrow Endemic (NE) County Group A	Very low. Occurs on clay soils that are not found on site.		
San Diego needlegrass (Achnatherum diegoense)	/ CNPS List 4.2 County Group B	Very low. While it prefers metavolcanic soils, as represented by Friant sandy loam on site, the site is generally too disturbed to support this species.		
San Diego ambrosia (Ambrosia pumila)	FE/ CNPS List 1B.1	Very low. According to the CNDDB, only 5 locations for this plant are presumed extant or		

	MSCP NE	possibly extant in the El Cajon quadrangle. This
	County Group A	species is known in California from fewer than
		20 occurrences (CNPS 2006).
Palmer's sage	/	Very low. Occurs primarily along creeks and in
(Artemisia palmeri)	CNPS List 4.2	drainages or on mesic hillsides (CNPS 2005).
	County Group D	Would have been observed if present.
Orcutt's brodiaea	/	Very low. Usually occurs on clay soils that are
(Brodiaea orcuttii)	CNPS List 1B.1	not found on site.
	MSCP Covered	
	County Group A	
Prostrate spineflower	/	Low. Typically occurs in sandy openings in
(Chorizanthe	CNPS Delisted	chamise chaparral but can also occur in sage
procumbens)	Removed from	scrub (Reiser 2001), neither habitat of which is
	County list in	found on site.
	2001	

Table 2 (cont.) LISTED OR COUNTY SENSITIVE PLANT SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR
Western dichondra	/	Low. A cryptic herb that occurs in a variety of
(Dichondra	CNPS List 4.2	shrub habitats and in rocky outcrops in
occidentalis)	County Group D	grasslands, especially after a fire (Reiser 2001).
	_	The level of disturbance on site likely precludes
		species' presence.
Variegated dudleya	/	Very low. Occurs on clay soils that are not
(Dudleya variegata)	CNPS List 1B.2	found on site.
	MSCP NE	
	County Group A	
Graceful tarplant	/	Low to moderate. Occurs in grasslands with
(Holocarpha virgata	CNPS List 4.2	little shrub cover. While some habitat is present
ssp. elongata)	County Group D	on site, the level of disturbance makes its
		presence unlikely.
Robinson pepper grass	/	Low. Occurs in openings in chaparral and sage
(Lepidium virginicum	CNPS List 1B.2	scrub, possibly on volcanic substrates (Reiser
var. robinsonii)	County Group A	2001). Neither habitat is present on site.
San Diego goldenstar	/	Very low. Occurs on clay soils supporting
(Muilla clevelandii)	CNPS List 1B.1	grassland or open coastal sage scrub not found
	MSCP Covered	on site.
	County Group A	

Munz sage	/	Very low. Dictionary Hill is its northern-most
(Salvia munzii)	CNPS List 2.2	locale (Reiser 2001). Would have been observed
	County Group B	if present.
Mesa club moss	/CNPS	Low. Rarely inhabits disturbed soils such as
(Selaginella	CNPS Delisted	those on site. Would have been observed of
cinerascens)	County Group D	present.
San Diego sunflower	/	Low. A perennial shrub that would have been
(Viguiera laciniata)	CNPS List 4.2	observed if present.
	County Group D	

^{*}Refer to Appendix C for a listing and explanation of status and sensitivity codes

3.4 ANIMALS

A list of all animal species observed on site is presented in Appendix B.

3.4.1 Sensitive Animal Species Observed

No listed threatened or endangered plant species were observed on site. Two animal species identified as County sensitive were observed on site and are described below, with their locations of observations illustrated on Figure 3. Please refer to Appendix C for an explanation of status and sensitivity codes.

Cooper's hawk (Accipiter cooperii)

Status: --/CSC; MSCP Covered

Distribution: Occurs year-round throughout San Diego County's coastal slope where tree

stands are present

Habitat: Oak groves, mature riparian woodlands, and eucalyptus stands or other mature forests

Status on site: An individual observed flying out of the on-site riparian vegetation

Western bluebird (Sialia mexicana)

Status: --/--; MSCP Covered

Distribution: Occurs throughout much of San Diego County but concentrated in foothills and

mountains

Habitat: Montane coniferous and oak woodlands

Status on site: At least three individuals observed in disturbed habitat immediately adjacent to

riparian vegetation on site

3.4.2 Sensitive Animal Species with Potential to Occur on Site

Sensitive animal species with potential to occur on site are listed in Table 3. Status and sensitivity codes are presented in Appendix C.

Table 3 LISTED OR COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR		
	INVERTEBRATES			
Quino checkerspot butterfly (Euphydryas editha quino)	FE/	None. Larval host plant (dwarf plantain [<i>Plantago erecta</i>]) is unlikely to occur on site, which is in an urban setting outside the 2002 recommended survey area. Focused surveys not recommended.		
Hermes copper (Lycaena hermes)	/	Low. Food plant (<i>Rhamnus crocea</i>) found in Diegan coastal sage scrub. Not reported for the area.		
Monarch butterfly (Danaus plexhippus)	/	Low. Migratory butterfly that prefers to roost during winter in protected tree groves, particularly in areas with access to water and food (nectar) sources.		
Coronado skink (Eumeces skiltonianus interparietalis)	/CSC	None. Occurs in a variety of habitats under rocks, leaf litter, logs, debris, or in shallow burrows. Habitat on site is not appropriate.		
Coastal rosy boa (Lichanura trivirgata roseofusca)	/	None. Occurs in rocky chaparral-covered hillsides and canyons, which are not present on site.		

Table 3 (cont.) LISTED OR COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

SPECIES	STATUS*	POTENTIAL TO OCCUR		
	INVERTEBRATES (cont.)			
San Diego horned lizard (Phrynosoma coronatum blainvillei)	/CSC MSCP Covered	Very low. Occurs in coastal sage scrub, chaparral, and open oak woodlands and coniferous forests. Important habitat components include basking sites, adequate scrub cover, loose soil areas, and abundance of harvester ants (<i>Pogonomyrmex</i> sp.), a primary prey item. Habitat on site not appropriate.		
Coast patch-nosed snake (Salvadora hexalepis virgultea)	/CSC	Very low. Can occur in most environments but prefers chaparral, which is not present on site.		

VERTEBRATES			
Birds			
Sharp-shinned hawk (Accipiter striatus)	/CSC	Low to moderate. Breeds in coniferous forests and winters in large variety of woodlands during winter and migration. Hunts in woodland edge openings. Could forage on site, but habitat limited.	
Grasshopper sparrow (Ammodramus savannarum)	/	Low to moderate. Generally prefers moderately open grasslands with patchy, bare ground. Appropriate habitat limited on site.	
Bell's sage sparrow (Amphispiza belli belli)	/CSC	Very low. Prefers stands of chaparral and scrub habitats, although may occur in more open habitat in winter. Appropriate habitat limited on site.	
Great blue heron (Ardea herodias)	/	Low. A water bird that appears year-round at wetlands but may forage away from water. Nesting colonies can occur in eucalyptus groves.	
Burrowing owl (Athene cunicularia)	/CSC MSCP Covered	Very low. CNDDB has no reports for USGS El Cajon quadrangle. Would likely have been observed.	
Ferruginous hawk (Buteo regalis)	/CSC MSCP Covered	Very low. Requires large, open tracts of grassland. Appropriate habitat limited on site and in area.	
Turkey vulture (Cathartes aura)	/	Low to moderate to forage on site. Occurs in open stages of most habitats that provide adequate cliffs or large trees for nesting and roosting.	
Northern harrier (Circus cyaneus)	/CSC MSCP Covered	Low. Associated with large tracts of open habitats. Appropriate habitat limited in the area.	
White tailed kite (Elanus leucurus)	/Fully Protected	Low. Inhabits low elevation, open grasslands, savannah-like habitats, agricultural areas, wetlands, and oak woodlands. Riparian areas adjacent to open areas are also used (Dunk 1995). Habitat limited on site.	
California horned lark (Eremophila alpestris actia)	/CSC	Moderate. Occurs in a variety of open habitats, usually where trees and large shrubs are absent.	

LISTED OR COUN	Table 3 (TY SENSITIVE ANIM OCC	AL SPECIES WITH POTENTIAL TO
SPECIES	STATUS*	POTENTIAL TO OCCUR
	VERTEBRA	ΓES (cont.)

Birds (cont.)		
Prairie falcon (Falco mexicanus)	/CSC	Very low. Primarily occurs in the desert except in winter where it is encountered more often (SDNHM 2004). Habitat limited on site.
Loggerhead shrike (Lanius ludovicianus)	/CSC	Low. Forages over open ground within areas of short vegetation, mowed roadsides, riparian areas, etc. Likes to perch on posts and utility lines. Rarely occurs in urbanized areas.
California gull (Larus californicus)	/CSC	None. An oceanic species that sometimes occurs at inland lakes. Habitat not appropriate on site.
Coastal California	FT/CSC	None. Diegan coastal sage scrub not present on
gnatcatcher	MSCP	site.
(Polioptila californica californica)	Covered	
Mammals		
Pallid bat (Antrozous pallidus)	/CSC	Low. Occurs across much of the American west. Roosts in rock crevices, caves, mine shafts, under bridges, and in buildings and tree hollows (Bats of San Diego County [Bats] 2003). Appropriate habitat limited in the area.
Dulzura California pocket mouse (Chaetodipus californicus femoralis)	/CSC	Low. Inhabits such habitats as coastal scrub, chaparral and grassland and is probably attracted to grass-chaparral edge (Zeiner and White 1990).
Northwestern San Diego pocket mouse (Chaetodipus fallax fallax)	/CSC	Low. Inhabits coastal sage scrub, sage scrub/ grassland ecotones and chaparral communities. Generally exhibits strong affinity for moderately gravelly and rocky substrates (Bleich 1973; Price and Waser 1984). Appropriate habitat limited on site.
Mexican long-tongued bat (Choeronycteris mexicana)	/CSC	Low. Feeds on nectar and pollen from agaves and other plants likely present on adjacent properties. Roosts in caves, mines, or buildings. Found under residence in Mt. Helix area in 1997 (CNDDB).
Townsend's big-eared bat (Corynorhinus townsendii)	/CSC	Very low. Found in desert scrub and coniferous forests. Roosts in caves or abandoned mines, occasionally in buildings (Bats 2003).
Greater western mastiff bat (Eumops perotis californicus)	/CSC	Very low. Lives in rocky areas and cliff faces. Roosts in cliff crevices and buildings (Bats 2003).
San Diego black-tailed jackrabbit (Lepus californicus	/CSC	Low. Primarily is found in arid shortgrass habitats, but site too small and surrounded by development to support species.

bennettii)		

Table 3 (cont.) LISTED OR COUNTY SENSITIVE ANIMAL SPECIES WITH POTENTIAL TO OCCUR

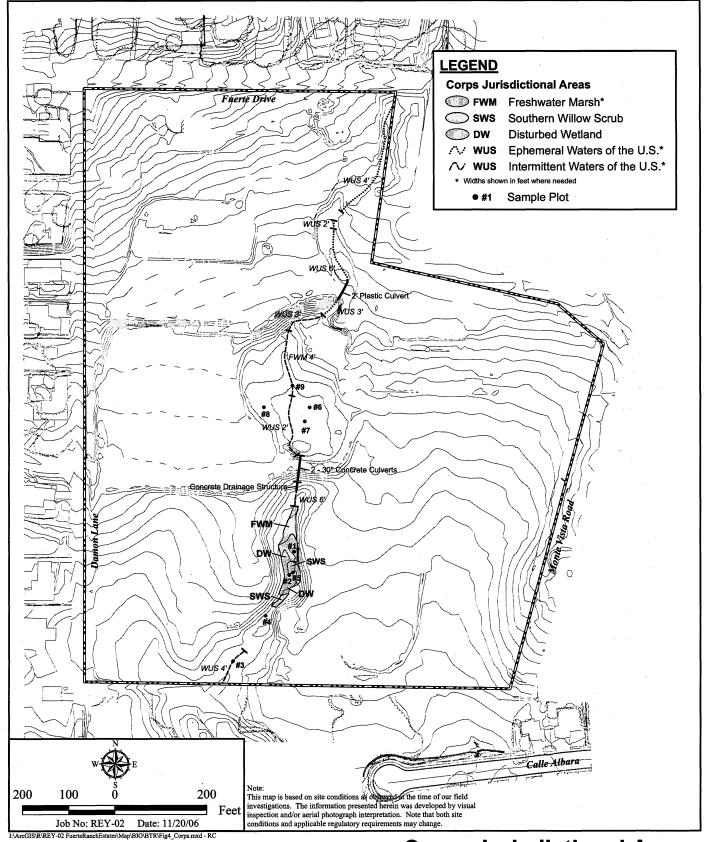
SPECIES	STATUS*	POTENTIAL TO OCCUR			
VERTEBRATES (cont.)					
Mammals (cont.)					
Yuma myotis (Myotis yumanensis)	/	Low. Always found near lakes, creeks or ponds. Roosts by day under building sidings or shingles (Bats 2003).			
San Diego desert woodrat (Neotoma lepida intermedia)	/CSC	Low. Found in a variety of shrub and desert habitats primarily associated with rock outcroppings, boulders, cacti, or dense undergrowth areas.			
Big free-tailed bat (Nyctinomops macrotis)	/	Very low. Lives in rocky areas of desert scrub or coniferous forests. Roosts by day in crevices on cliff faces (Bats 2003).			
Pocketed free-tailed bat (Nyctinomops femorosaccus)	/CSC	Low. Lives in deserts and sage scrub. Roosts in rocky crevices (Bats 2003).			
Southern mule deer (Odocoileus hemionus)	/ MSCP Covered	Very low. Site is much too small and surrounded by development to support this large herbivore.			
Southern grasshopper mouse (Onychomys torridus ramona)	/CSC	Low to moderate. Occurs in grasslands and sparse coastal sage scrub habitats.			
American badger (Taxidea taxus)	/CSC MSCP Covered	None. Site too small and surrounded by development to support this carnivorous predator.			

^{*}Refer to Appendix C for a listing and explanation of status and sensitivity codes

3.5 JURISDICTIONAL AREAS

Corps and CDFG jurisdictional areas include drainages/streambeds and associated vegetation (Figures 4 and 5, respectively). The drainage is a highly disturbed feature maintained by continuous runoff from the chicken ranch operation that is served by water pumped from a well in the northwest corner of the site. The drainage is of low quality and supports mostly invasive material such as castor bean.

Areas identified as disturbed emergent wetland are not considered Corps or CDFG jurisdictional because they are located above the level of the drainage channel in what was previously the

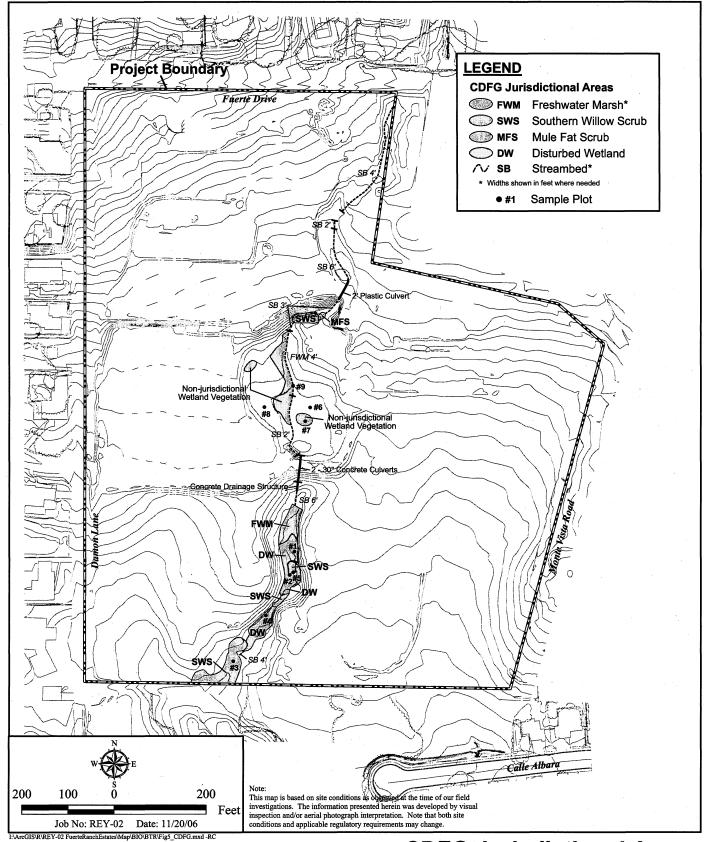


Corps Jurisdictional Areas

FUERTE RANCH ESTATES

HELIX

Figure 4



CDFG Jurisdictional Areas

FUERTE RANCH ESTATES

HELIX

Figure 5

bottom of an artificially created pond. The pond was created as part for the agricultural operation but has been drained for many years. The persistence of the emergent wetland vegetation's presence is most likely a result of the rains of the 2005/2006 winter combined with runoff from the hen houses. In addition, the species present are facultative wetland species not restricted to wetlands but found in uplands approximately 50 percent of the time. With a lack of any obligatory wetland species, an inappropriate landscape position relative to the drainage channel, and presence likely due to the previous winter's very high rainfall, disturbed emergent wetland was not considered to persist year after year and (of the land use changes) not to have enough water to persist. Disturbed emergent wetland was therefore not considered jurisdictional.

Pursuant to the RPO (County 2007), the site's wetland resources are highly disturbed and artificially maintained by an agricultural operation that dumps pumped water from a well in the northwestern portion of the site and would be lost if the water pumping were stopped. As a result, and with concurrence from County staff, it has been concluded that no County RPO wetlands occur on site pursuant to RPO Section 86.602(q)(2)(bb).

3.5.1 Corps Jurisdictional Areas

Areas under Corps jurisdiction occur in and adjacent to the north-south drainage (Figure 4) and constitute approximately 0.19 acre, which includes 0.14 acre of wetlands and 0.05 acre of non-wetland Waters of the U.S. (Table 4).

Table 4 CORPS JURISDICTIONAL AREAS				
HABITAT ACREAGE				
Wetlands				
Southern willow scrub	0.02			
Freshwater marsh	0.04			
Disturbed wetland	0.08			
Non-wetland Waters of the U.S.				
Ephemeral drainage	0.02			
Intermittent drainage	0.03			
TOTAL 0.19				

3.5.2 CDFG Jurisdictional Areas

Areas under CDFG jurisdiction include the drainage (0.06 acre) and riparian vegetation (0.36 acre; Figure 5) totaling 0.42 acre (Table 5).

Table 5 CDFG JURISDICTIONAL AREAS

HABITAT	ACREAGE
Wetlands	
Southern willow scrub	0.15
Mule fat scrub	< 0.01
Freshwater marsh	0.07
Disturbed wetland	0.14
Non-wetlands Waters of the State	
Streambed	0.06
TOTAL	0.42

4.0 REGIONAL AND REGULATORY CONTEXT

4.1 REGIONAL CONSERVATION CONTEXT

The property is located within the Metro-Lakeside-Jamul Segment of the County's MSCP Subarea Plan but is not part of that segment's PAMA and is not within a BRCA. As a result, conformance to the County MSCP Subarea Plan would occur via conformance with the Biological Mitigation Ordinance (BMO), which would address all federal, state, and County conservation issues for species covered by the MSCP.

4.2 REGULATORY ISSUES

Biological resources are subject to regulatory review by the federal government, State of California, and County. The federal government administers non-marine plant and wildlife related issues through the USFWS, while wetlands and Waters of the U.S. issues are administered by the Corps. California law relating to wetland, water-related, and wildlife issues is administered by the CDFG.

4.2.1 Federal Government

Administered by the USFWS, the federal ESA provides the legal framework for the listing and protection of species (and their habitats) that are identified as being threatened or endangered with extinction. Actions that jeopardize threatened or endangered species and the habitats upon which they rely are considered a "take" under the ESA. Section 9(a) of the ESA defines take as "to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, collect, or attempt to engage in any such conduct." "Harm" and "harass" are further defined in federal regulations and case law to include actions that adversely impair or disrupt a listed species' behavioral patterns.

Sections 4(d), 7, and 10(a) of the federal ESA regulate actions that could jeopardize threatened or endangered species. Section 10(a) allows issuance of permits for "incidental" take of threatened or endangered species. The term "incidental" applies if the taking of a listed species is incidental to and not the purpose of an otherwise lawful activity. The MSCP is a Section 10(a) permit under the federal ESA.

All migratory bird species that are native to the U.S. or its territories are protected under the federal Migratory Bird Treaty Act (MBTA), as amended under the Migratory Bird Treaty

Reform Act of 2004. The MBTA is generally protective of migratory birds (e.g., raptors, including those that are not considered County sensitive [e.g., red-tailed hawk {Buteo jamaicensis}]). In common practice, USFWS places restrictions on disturbances allowed near active raptor nests.

Federal wetland regulation (non-marine issues) is guided by the Rivers and Harbors Act of 1899 and the Clean Water Act. The Rivers and Harbors Act deals primarily with discharges into navigable waters, while the purpose of the Clean Water Act is to restore and maintain the chemical, physical, and biological integrity of all Waters of the U.S. Permitting for projects filling Waters of the U.S. (including wetlands and vernal pools) is overseen by the Corps under Section 404 of the Clean Water Act. Projects may be permitted on an individual basis or may be covered under one of several approved nationwide permits, where individual permits are assessed individually based on the type of action, amount of fill, etc. Individual permits typically require substantial time (often longer than 6 months) to review and approve, while nationwide permits are pre-approved if a project meets appropriate conditions. It is currently assumed that a Nationwide 29 Section 404 Permit would be required for the project. Section 401 of the Clean Water Act is overseen in California by the State Water Resources Quality Control Board and administered by the RWQCBs. Projects that require a Section 404 Permit also are required to obtain a Water Quality Certification from the San Diego RWQCB.

4.2.2 State of California

The California ESA is similar to the federal ESA in that it contains a process for listing of species and regulating potential impacts to listed species. Section 2081 of the California ESA authorizes CDFG to enter into a memorandum of agreement for take of listed species for scientific, educational, or management purposes. The MSCP is a 2081 Permit under the state ESA.

The Native Plant Protection Act (NPPA) enacted a process by which plants are listed as rare or endangered. The NPPA regulates collection, transport, and commerce in plants that are listed. The California ESA followed NPPA and covers both plants and animals that are determined to be threatened or endangered with extinction.

The California Fish and Game Code (Sections 1600 through 1603) requires an agreement with the CDFG for projects affecting riparian and wetland habitats through issuance of a Streambed Alteration Agreement. It is assumed that the project would require a 1602 Agreement from CDFG.

4.2.3 County of San Diego

The County regulates natural resources via its RPO, which has regulations that cover wetlands, wetland buffers, and sensitive habitats. Wetland habitats are defined per the County RPO, which requires that open space easements be placed over steep slopes and development be precluded from floodways or floodplains, wetlands, and sensitive habitat lands. Sensitive habitat lands are identified by the RPO as lands that "support unique vegetation communities, or habitats of rare or endangered species or sub-species of animals or plants as defined by Section 15380 of the CEQA Guidelines."

Furthermore, the County's BMO enables the County to achieve conservation goals of the County's MSCP Subarea Plan. The BMO sets forth criteria for avoiding impacts to sensitive vegetation communities and to plant and animal populations within those areas, and the mitigation requirements for all projects requiring discretionary permits. Pursuant to the BMO, the County requires avoidance of impacts to 80 percent of County Group A and B sensitive plants, avoidance of critical populations, as well as conformance to preserve design criteria.

CEQA and its implementing guidelines (CEQA Guidelines) require projects that potentially have significant effects (or impacts) on the environment to be submitted for environmental review. Significant impacts to the environment are typically mitigated through the environmental review process, in accordance with existing laws and regulations. The County is the lead agency under CEQA.

5.0 IMPACTS

Impacts addressed in this section are considered either direct or indirect. A direct impact occurs when the primary effects of the project replace existing habitat with graded or developed areas. An indirect impact consists of secondary effects of a project on nearby natural or preserved areas, such as exotic species invasion, increased lighting, noise, and increased human intrusion. The magnitude of an indirect impact can be the same as a direct impact; however, the effect usually takes a longer time to become apparent.

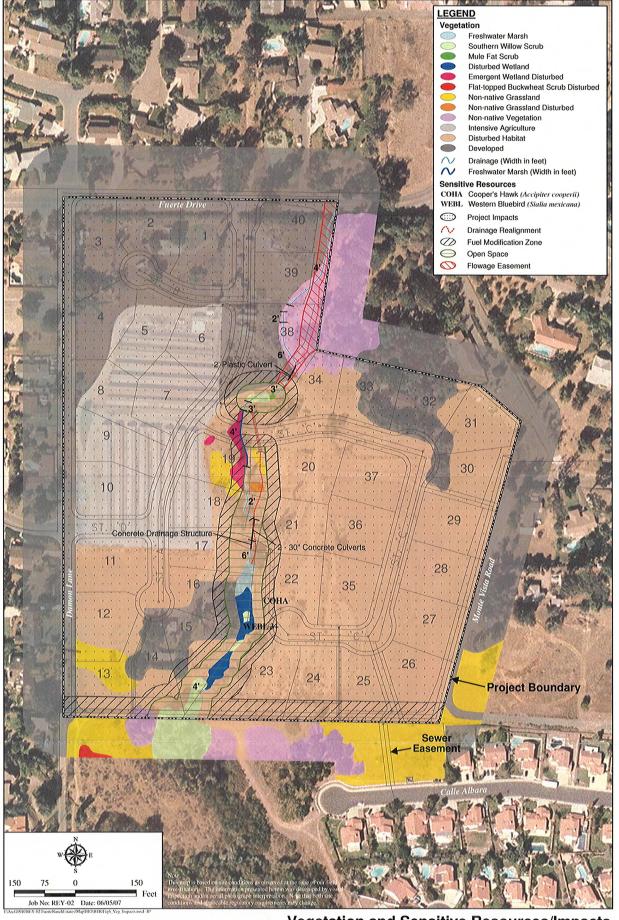
5.1 DIRECT AND INDIRECT ON-SITE IMPACTS

5.1.1 Direct Impacts

Sensitive Vegetation Communities

Proposed project implementation would impact six sensitive vegetation communities: 0.06 acre of freshwater marsh, 0.15 acre of southern willow scrub, less than 0.01 acre of mule fat scrub, 0.14 acre of disturbed wetland, 0.11 acre of disturbed emergent wetland, and 0.40 acre of nonnative grassland (Figure 6; Table 6). Impacts to these vegetation communities are considered significant.

Table 6 ON- AND OFF-SITE IMPACTS AND MITIGATION TO VEGETATION COMMUNITIES



HELIX

Vegetation and Sensitive Resources/Impacts

VEGETATION	EXISTING IMPA		ACTS	MITIGATION	
COMMUNITY/HABITAT*	(on and off site)	On Site	Off Site	Rati o	Required
Tier I					
Freshwater marsh (52410)	0.06	0.06	0.00	1:1	0.06
Southern willow scrub (63320)	0.15	0.15	0.00	1:1	0.15
Mule fat scrub (63310)	< 0.01	< 0.01	0.00	1:1	< 0.01
Disturbed wetland (11200)	0.14	0.14	0.00	1:1	0.14
Disturbed emergent wetland (52440)	0.11	0.11	0.00	1:1	0.11
Subtotal	0.46	0.46	0.00		0.46
Tier III					
Non-native grassland (including disturbed; 42200)	0.45†	0.40	0.05	0.5:1	0.23
Subtotal	0.45†	0.40	0.05	0.5:1	0.23
Other					
Non-native vegetation (11000)	0.60	0.60	0.00		0.00
Intensive agriculture (18000)	4.27	4.27	0.00		0.00
Disturbed habitat (11300)	13.57	13.57	0.00		0.00
Developed (12000)	7.95	7.95	0.00		0.00
Subtotal	26.39	26.39	0.00		0.00
TOTAL	27.30	27.25	0.05		0.69

^{*}Community names and codes are from Holland (1986) and Oberbauer (1996)

Non-sensitive Vegetation Communities

Implementation of the proposed project would directly impact 0.60 acre of non-native vegetation, 4.27 acres of intensive agriculture, 13.57 acres of disturbed habitat, and 7.95 acres of developed land (Table 6). Impacts to these communities are not considered significant.

Sensitive Plants

No sensitive plant species were observed on site during the general biological survey, and no sensitive plants are expected to occur on site due to the high level of disturbance; therefore, no impacts to sensitive plants are expected to occur.

Sensitive Animals

Two sensitive animal species were observed on site (Cooper's hawk and western bluebird), impacts to which would be adverse but not significant.

Raptors

There is potential to impact raptor nesting directly or indirectly during construction. Although no nests were observed on the project site, it is possible that raptor nests are present or could

[†]Existing non-native grassland acreages include 0.40 on site and 0.05 off site

become established in the vicinity prior to vegetation removal. Direct impacts to an active raptor nest are not allowed under the federal MBTA. Indirect impacts to a raptor nest that would be considered significant include any construction activity within 500 feet of an active nest. Nests are generally active between February 1 and August 31.

Jurisdictional Impacts

Impacts to Corps and CDFG jurisdictional areas differ from impacts under CEQA because of differing definitions of impacts under federal and state regulation. Implementation of the proposed project would impact a total of 0.07 acre of Corps jurisdictional areas, including permanent impacts to 0.01 acre of freshwater marsh and 0.03 acre of non-wetland Waters of the U.S. and temporary impacts to 0.03 acre of non-wetland Waters of the U.S. through realignment of the channel through the site. The permanent impacts would be significant because Waters of the U.S. are regulated by the federal government.

Implementation of the proposed project would impact a total of 0.07 acre of CDFG jurisdictional areas, including permanent impacts to 0.01 acre of freshwater marsh and 0.03 acre of streambed and temporary impacts to 0.03 acre of streambed, again through realignment of the channel. The permanent impacts would be significant because the state government regulates them. Impacts to Corps and CDFG jurisdictional areas and mitigation for these impacts are further discussed in Appendix D.

The project would not impact any County RPO wetlands, as none were identified on site pursuant to Section 86.602(q)(2)(bb) of the RPO.

Wildlife Corridors

The proposed project site lies outside of any identified regional or local wildlife corridor or linkage. Features on site (i.e. the draining) may provide for some local wildlife movement. This local wildlife movement would not connect with significant amounts of open space to the west, north or east, but would connect with Damon Lane County Park (Open Space Preserve) to the south. Given the fragmented nature of habitat north of the property and limited habitat values on site, this connection with open space to the south would serve primarily to maintain movement for predators such as coyotes within fragmented habitat patches. No significant impacts to wildlife movement would occur from project implementation.

5.1.2 Indirect Impacts

No indirect impacts to water quality or from fugitive dust, colonization of non-native plant species in previously undisturbed areas, human activity/edge effects, roadkill, night lighting, or noise would occur on site.

5.2 DIRECT AND INDIRECT OFF-SITE IMPACTS

5.2.1 Direct Impacts

Sensitive Vegetation Communities

Installation of the sewer system from the project site through Damon Lane County Park connecting to the existing sewer system in Calle Albara would impact 0.05 acre of non-native grassland off site.

5.2.2 Indirect Impacts

Potential indirect impacts from implementation of the proposed project could result in decreased water quality (i.e., through sedimentation, contaminants, or fuel release), fugitive dust, colonization of non-native plant species in previously undisturbed areas, human activity/edge effects, roadkill, night lighting, and noise.

Water Quality

Water quality in riparian areas could be adversely affected by potential surface runoff from the residential development as proposed, including urban contaminants such as fertilizers, pesticides, and car petroleum products. Decreased water quality may adversely affect vegetation, aquatic animals, and terrestrial wildlife that depend on these resources. Site design Best Management Practices (BMPs) are intended to control construction and post-development runoff, erosion potential and contaminant generation to the maximum extent practicable. Therefore, no significant impact to downstream riparian areas would occur.

Fugitive Dust

Fugitive dust can disperse onto sensitive vegetation, and a continual cover of dust may reduce the overall vigor of individual plants by reducing their photosynthetic capabilities and increasing their susceptibility to pests or disease. In turn, this could affect animals dependent on these plants. Clearing and grading could result in the deposition of significant amounts of dust on plants within and adjacent to the project site, which could cause a significant impact. However, implementation of dust control measures would prevent fugitive dust from impacting surrounding properties, reducing this impact to less than significant. Dispersal of fugitive dust during project construction would be substantially controlled by standard measures such as multiple applications of water during grading between dozer/scraper passes. Because active construction areas and unpaved surfaces would be watered pursuant to County grading permit requirements to minimize dust generation, impacts to biological resources adjacent to the site would be less than significant.

Non-native Plant Species HELIX

Non-native plants could colonize sites disturbed by construction and could potentially spread into adjacent native habitats, especially following a disturbance such as fire. Many of these non-native plants are highly invasive and can displace native vegetation, reducing native species diversity. An abundance of non-native species could increase flammability and fire frequency, change ground and surface water levels, or adversely affect native wildlife dependent on native plant species. Impacts from non-native plant species are expected to be minimal, however, as the site would be developed and landscaped with non-invasive species consistent with the California Invasive Plant Inventory prepared by the California Invasive Plant Council (Cal-IPC 2006). In addition, the landscaping plan would be submitted to the County for approval prior to issuance of any clearing or grading permit. Therefore, impacts from colonization of non-native plant species would be less than significant.

Human Activity/Edge Effects

Urbanization and increases in human activity can result in degradation to sensitive vegetation by fragmenting the land and forming edges between developed areas and habitat. These edges make it easier for non-native plant species to invade native habitats, and for native and non-native predators to access prey that may have otherwise been protected within large, contiguous blocks of habitat. In addition, secondary extinctions through disruption of predator-prey, parasite-host, and plant-pollinator relations can also occur (Soulé 1986). Illegal dumping of lawn and garden clippings, trash, or other refuse also could occur. Given that the entire site is considered impacted and fencing would be installed along the interface of the project site and Damon Lane County Park, no significant impacts from human activity/edge effects would occur.

Roadkill

The project would result in an increase in the number of vehicles traveling through the area. Roadkill impacts would be considered significant if they result in adverse effects to federally or state listed species. Increased roadkill impacts are expected to be minimal, as the area is already urbanized. Therefore, roadkill impacts are anticipated to be adverse but not significant.

Night Lighting

Night lighting exposes wildlife species to an unnatural light regime and may alter their behavior patterns, which could result in a loss of species diversity. Night lighting on native habitats can also provide nocturnal predators with an unnatural advantage over their prey, which could cause an increased loss in native wildlife. Lighting within the proposed project development adjacent to the Damon Lane County Park shall be of the lowest illumination allowed for human safety, selectively placed, shielded, and directed away from preserved habitat. All proposed project-related lighting would be required to adhere to the County's Dark Sky Ordinance (Division 9 of the San Diego County Light Pollution Code). Therefore, no significant impact resulting from night lighting would occur.

Noise HELIX Noise from such sources as clearing and grading could result in an impact to wildlife. Noise-related impacts would be considered significant if sensitive species (such as raptors) were displaced from their nests and failed to breed. Birds nesting within any area impacted by noise exceeding 60 dB could be significantly impacted. As a result, any construction activity within 500 feet of an active raptor nest (300 feet for a Cooper's hawk nest) would be considered significant.

6.0 PROPOSED MITIGATION MEASURES FOR SIGNIFICANT IMPACTS

The proposed project would significantly impact sensitive vegetation communities, Corps and CDFG jurisdictional areas, and animal species through direct loss and could cause additional significant indirect impacts to them. These impacts shall be mitigated per the County's MSCP Subarea Plan and BMO guidelines, which describe mitigation measures and ratios necessary to mitigate project impacts to below a level of significance.

Mitigation for impacts to Corps and CDFG jurisdictional impacts are addressed in Appendix D and would be finalized during the wetland permitting phase of the project to the satisfaction of the appropriate agencies. Mitigation for impacts to habitats on site shall be implemented prior to or concurrently with impacts, as appropriate. Indirect impacts shall be avoided or mitigated through implementation of mitigation measures prior to, or immediately following, the adverse effect.

The following mitigation measures (MM) shall be finalized through consultation with the County and resource agencies as part of the required regulatory processes. Evidence shall be demonstrated that all applicable state and federal wetland and endangered species permits (as appropriate) have been obtained prior to issuance of any grading permit.

6.1 VEGETATION COMMUNITIES/HABITATS

- Impact 6.1.1 Implementation of the proposed project would significantly impact 0.06 acre of freshwater marsh, 0.15 acre of southern willow scrub, less than 0.01 acre of mule fat scrub, 0.14 acre of disturbed wetland, and 0.11 acre of disturbed emergent wetland.
- MM 6.1.1 Impacts to 0.46 acre of wetland vegetation communities shall be mitigated through purchase of 0.50 acre of wetland credit at the Rancho Jamul Mitigation Bank.

Per the BMO, a mitigation ratio of 1:1 is applied for impacts to Tier I vegetation communities outside a BRCA when mitigation occurs within a BRCA. The total impacts to Tier I vegetation communities of 0.46 acre are more than adequately mitigated by the acquisition of 0.50 acre of credit at the Rancho Jamul Mitigation Bank. The credit is for enhancement of existing resources representing an even greater contribution to the MSCP preserve and wetland function and

services within the MSCP than preservation alone.

- Impact 6.1.2 Implementation of the proposed project would significantly impact 0.45 acre of non-native grassland.
- MM 6.1.2 Impacts to 0.45 acre of non-native grassland shall be mitigated at a 0.5:1 ratio (Table 6) and shall occur with purchase of Tier III mitigation credits from an approved mitigation bank. Proof of acquisition shall be provided to the County prior to issuance of any grading permit.

6.2 ANIMAL SPECIES

- Impact 6.2.1 Proposed project implementation could significantly impact nesting raptors if construction were to commence during raptor breeding season (February 1 to August 31).
- MM 6.2.1 No grading or clearing within 500 feet of occupied raptor habitat (300 feet from Cooper's hawk) during the raptor breeding season (February 1 to August 31) shall occur. As such, all grading permits, improvement plans, and the final map shall state the same. If clearing or grading would occur during the breeding season for raptors, a pre-construction survey shall be conducted to determine if these species occur within the areas impacted by noise. To avoid take under the MBTA, impacts shall be avoided within 500 feet of nesting raptors (300 feet from Cooper's hawk). If there are no raptors nesting (includes nest building or other breeding/nesting behavior) within this area, development shall be allowed to proceed. However, if raptors are observed nesting or displaying breeding/nesting behavior within the area, construction shall be postponed until all nesting (or breeding/nesting behavior) has ceased or until after August 31.

In order to ensure compliance with the MBTA, clearing of native vegetation shall occur outside of the breeding season of most avian species (February 1 through September 15). Brushing, clearing, and/or grading during the breeding season of MBTA-covered species may only occur after a pre-construction survey determines that no nesting birds (or birds displaying breeding or nesting behavior) are present in the area to be brushed, cleared, and/or graded and approval is obtained from the Director of Planning and Land Use with concurrence from USFWS and CDFG.

6.3 JURISDICTIONAL AREAS

Mitigation for impacts to jurisdictional areas are included in Appendix D.

6.4 INDIRECT IMPACTS

- Impact 6.4.1 Noise from such sources as clearing and grading could result in an impact to wildlife. Noise-related impacts would be considered significant if sensitive species (such as raptors) were displaced from their nests and failed to breed.
- MM 6.4.1 Mitigation for potential noise-related impacts to avian species shall occur through implementation of MM 6.2.1, above.

7.0 LEVEL OF SIGNIFICANCE AFTER MITIGATION

Implementation of the proposed project would result in significant impacts (on and off site) to the following sensitive habitats: freshwater marsh, southern willow scrub, mule fat scrub, disturbed wetland, disturbed emergent wetland, and non-native grassland.

No significant impacts to sensitive plant species would occur on site, as no sensitive plant species occur on site.

There is potential to impact raptor nesting habitat directly or indirectly during construction. Although no nests were observed on site, it is possible that raptor nests are present or could become established in the vicinity prior to vegetation removal. There would also be significant impacts to jurisdictional areas as a result of the project, and potentially significant indirect impacts were identified from noise.

Mitigation measures for loss of habitat include off-site acquisition at ratios acceptable to the County and applicable resource agencies. Restriction of construction activities during breeding season would reduce significant impacts to noise raptors. With implementation of the mitigation measures listed in Section 6.0 for significant impacts to sensitive biological resources pursuant to the regulations and requirements of the County, all project-specific impacts would be mitigated to below a level of significance.

8.0 CERTIFICATION/QUALIFICATION

The following individuals contributed to the fieldwork or preparation of this report:

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USFWS Permit 778195

9.0 REFERENCES

- American Ornithologists' Union. 2004. The AOU Checklist of North American Birds. URL: http://www.aou.org/checklist/birdlist45.pdf.
- Bats of San Diego County (Bats). 2005. URL: http://home.earthlink.net/~cmsquare/. October 16.
- Bleich, V.C. 1973. Ecology of Rodents at the United States Naval Weapons Station Seal Beach, Fallbrook Annex, San Diego County, California. M.A. Thesis, California State University, Long Beach. 102 pp.
- Bowman, R. 1973. Soil Survey of the San Diego Area. USDA in cooperation with the USDI, UC Agricultural Experiment Station, Bureau of Indian Affairs, Department of the Navy, and the U.S. Marine Corps.
- California Invasive Plant Council (Cal-IPC). 2006. Cal-IPC Invasive Plant Inventory. URL: http://portal.cal-ipc.org/weedlist.
- California Native Plant Society (CNPS). 2006. Inventory of Rare and Endangered Plants. Internet searchable database Version 7-06a. URL: http://www.cal.net/~levinel/cgibin/cnps/sensinv.cgi. January 24.
- County of San Diego. 1997. Biological Mitigation Ordinance (8845, New Series).
 - 2007. Resource Protection Ordinance. Ordinance No. 9842 (New Series): An Ordinance Codifying and Amending the Resource Protection Ordinance, Relating to Wetlands, Prehistoric and Historic Sites, Agricultural Operations, Enforcement, and Other Matters. Updated from 1991 Ordinances compilation. March 21.
- Crother, B.I. 2001. Scientific and Standard English Names of Amphibians and Reptiles of North America North of Mexico, With Comments Regarding Confidence in Our Understanding. Society for the Study of Amphibians and Reptiles 29. 84 pp.
- Dunk, J.R. 1995. White-tailed kite (*Elanus leucurus*). The Birds of North America, No. 178. Eds. A. Poole and F. Gill. The Academy of Natural Sciences, Philadelphia, and The American Ornithologists' Union, Washington, D.C.
- Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical Report Y-87-1. U.S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi. 100 pp. with Appendices.
- HELIX Environmental Planning, Inc. 2006a. Jurisdictional Delineation Report for Fuerte Ranch Estates. March 24.

- 2006b. Conceptual Revegetation Plan for the Fuerte Ranch Estates Project. April 18.
- Hickman, J.C., ed. 1993. The Jepson Manual: Higher Plants of California. Berkeley: University of California Press. 1400 pp.
- Holland, R.F. 1986. Preliminary descriptions of the terrestrial natural communities of California. Nongame-Heritage Program, California Department of Fish & Game.
- Oberbauer, T. 1996. Terrestrial Vegetation Communities in San Diego County Based on Holland's Descriptions. San Diego Association of Governments, San Diego, California, 6 pp.
- Price, M.V. and N.M. Waser. 1984. On the relative abundance of species: postfire changes in a coastal sage scrub rodent community. Ecology 65: 1161-1169.
- Reiser, Craig H. 2001. Rare Plants of San Diego County. Aquafir Press. July.
- San Diego Natural History Museum (SDNHM). 2004. San Diego County Bird Atlas. October 31.
- Soulé, Michael E., ed. 1986. Conservation Biology: The Science of Scarcity and Diversity. Chapter 11, Habitat Fragmentation in the Temperate Zone.
- U.S. Fish and Wildlife Service (USFWS). 2005. Carlsbad Fish and Wildlife Office Endangered and Threatened Species List. Updated January 5.
- Zeiner, D.C. and M. White, eds. 1990. California's Wildlife. Volume 3: Mammals. State of California, Department of Fish and Game. Sacramento, California. 407 pp.

Appendix A PLANT SPECIES OBSERVED – FUERTE RANCH ESTATES

FAMILY	SCIENTIFIC NAME	COMMON NAME
DICOTYLEDONES	S	
Aizoaceae	Carpobrotus edulis*	hottentot fig
Anacardiaceae	Schinus molle*	Peruvian pepper tree
	Schinus terebinthifolius*	Brazilian pepper
Asteraceae	Baccharis salicifolia	mule fat
	Baccharis sarothroides	broom baccharis
	Conyza sp.	fleabane
	Euthamia occidentalis	western goldentop
	Lactuca serriola	prickly lettuce
	Picris echioides*	bristly ox-tongue
	Sonchus asper*	prickly sow-thistle
	Xanthium strumarium*	cocklebur
Brassicaceae	Brassica sp.*	mustard
	Raphanus sativus	wild radish
Cactaceae	Opuntia sp.	cactus
Caprifoliaceae	Sambucus mexicana	Mexican elderberry, blue
Capinonaccac	Sambucus mexicana	elderberry
	Chenopodium ambrosioides*	Mexican tea
	Chenopodium sp.	pigweed
	Salsola tragus*	Russian thistle
Crassulaceae	Crassula sp.*	jade plant
Euphorbiaceae	Euphorbia sp.	spurge
	Ricinus communis*	castor bean
Fabaceae	Parkinsonia sp.*	Palo verde
Lythraceae	Ammannia coccinea	valley red-stem
Malvaceae	Malva parviflora	cheeseweed
Moraceae	Myoporum sp.	mulberry
Myrtaceae	Eucalyptus sp.*	eucalyptus
Polygonaceae	Polygonum arenastrum	small-leaved knotweed
	Rumex crispus*	curly dock
Rutaceae	Citrus sp.*	citrus
Salicaceae	Salix gooddingii	Goodding's black willow
	Salix laevigata	large-leaf willow
	Salix lucida	shining willow
Simaroubaceae	Ailanthus altissima*	tree of heaven
Solanaceae	Datura wrightii	jimson weed, thorn-apple
	Nicotiana glauca*	tree tobacco
	Solanum spp.*	nightshade
Tamaricaceae	Tamarix sp.*	tamarisk, salt-cedar
Typhaceae	Typha domingensis	southern cattail
- J P	- 2F 22 O 21,02,02	S S STATUTAL WATERLAND

Appendix A (cont.) PLANT SPECIES OBSERVED – FUERTE RANCH ESTATES

FAMILY SCIENTIFIC NAME COMMON NAME

MONOCOTYLEDONES

Arecaceae	Washingtonia robusta*	Mexican fan palm
Alliaceae	Phoenix canariensis*	Canary Island date palm
Cyperus	Cyperus involucratus	umbrella plant
Poaceae	Bromus madritensis ssp. rubens*	foxtail chess
	Cynodon dactylon*	Bermuda grass
	Lolium sp.	ryegrass
	Pennisetum clandestinum*	kikuyugrass
	Piptatherum miliaceum*	smilograss

^{*}Non-native species †Sensitive species

Appendix B ANIMAL SPECIES OBSERVED OR DETECTED – FUERTE RANCH ESTATES

SCIENTIFIC NAME

COMMON NAME

INVERTEBRATE

Lepidoptera – Butterflies and Moths

Vanessa cardui painted lady

VERTEBRATES

Birds

Accipitridae – Hawks, Kites, and Eagles

Accipiter sp. and A. cooperii† Cooper's hawk

Buteo jamaicensis red-tailed hawk

Aegithalidae – Bushtit

Psaltriparus minimus bushtit

Corvidae – Jays, Magpies, and Crows

Aphelocoma californica western scrub jay

Corvus brachyrhynchos American crow common raven

Emberizidae – Sparrows, Longspurs, and Emberiza Buntings *Pipilo crissalis*California towhee

Zonotrichia leucophrys white-crowned sparrow

Falconidae – Caracaras and Falcons

Falco sparverius American kestrel

Fringillidae – Finches

Carduelis psaltria lesser goldfinch

Carpodacus mexicanus house finch

Mimidae – Mockingbirds and Thrashers

Mimus polyglottos northern mockingbird

Parulidae – Wood Warblers

Dendroica coronata yellow-rumped warbler

Sturnidae – Starlings

Sturnus vulgaris* European starling

Thesienidae – Chickens

Gallus domesticus chicken

Trochilidae – Hummingbirds

Calypte anna Anna's hummingbird

Troglodytidae – Wrens

Troglodytes aedon house wren
Turdidae – Thrushes, Wheatears, Bluebirds, and Robins
Sialia mexicana† western bluebird

Tyrannidae – Tyrant Flycatchers, Phoebes, and Kingbirds

Cassin's kingbird

Appendix B (cont.)

ANIMAL SPECIES OBSERVED OR DETECTED - FUERTE RANCH ESTATES

SCIENTIFIC NAME

COMMON NAME

VERTEBRATES (cont.)

Mammals

Canidae – Foxes, Wolves, and Relatives

Canis latrans coyote (scat)
Canis lupus familiaris domestic dog
Leporidae – Rabbits and Hares

Sylvilagus auduboni

desert cottontail (scat and observations)

*Non-native species †Sensitive species

Appendix C EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES

U.S. Fish and Wildlife Service (USFWS)

FE Federally listed endangered FT Federally listed threatened

California Department of Fish and Game (CDFG)

SE State listed endangered ST State listed threatened

CSC California species of special concern

Fully Protected Fully Protected species refer to all vertebrate and invertebrate taxa of concern

to the Natural Diversity Data Base regardless of legal or protection status. These species may not be taken or possessed without a permit from the Fish

and Game Commission and/or CDFG.

County of San Diego

Plant sensitivity:

Group A Plants rare, threatened, or endangered in California or elsewhere

Group B Plants rare, threatened, or endangered in California but more common elsewhere

Group C Plants that may be quite rare, but more information is needed to determine rarity

status

Group D Plants of limited distribution and are uncommon, but not presently rare or

endangered

Animal sensitivity:

County Sensitive Animals considered under California Environmental Quality Act (CEQA) review of projects.

Multiple Species Conservation Program (MSCP) Covered

Multiple Species Conservation Program covered species for which the County and City have take authorization within MSCP area.

MSCP Narrow Endemic

"Narrow Endemic" is a sensitivity rating given by the MSCP to indicate "those species considered so restricted in distribution and abundance that substantial loss of their populations or habitat might jeopardize the species' continued existence or recovery."

Appendix C (cont.) **EXPLANATION OF STATUS CODES FOR PLANT AND ANIMAL SPECIES**

California Native Plant Society (CNPS) Codes

Lists

- 1A = Presumed extinct.
- 1B = Rare, threatened, or endangered in California and elsewhere. Eligible for state listing.
- 2 = Rare, threatened, or endangered in California but more common elsewhere. Eligible for state listing.
- 3 = Distribution, endangerment, ecology, and/or taxonomic information needed. Some eligible for state listing.
- 4 = A watch list for species of limited distribution. Needs monitoring for changes in population status. Few (if any) eligible for state listing.

Threat Code Extensions

- .1 Seriously endangered in California (over 80% of occurrences threatened/high degree and immediacy of threat)
- .2 Fairly endangered in California (20-80% occurrences threatened)
- .3 Not very endangered in California (<20% of occurrences threatened or no current threats known)

Plants lacking any threat information receive no threat code extension.

Appendix D JURISDICTIONAL IMPACTS AND MITIGATION

IMPACTS

Pursuant to Clean Water Act Section 404 and California Fish and Game Code Section 1602, implementation of the proposed project would impact a total of 0.07 acre of U.S. Army Corps of Engineers (Corps) and California Department of Fish and Game (CDFG) jurisdictional areas, including permanent impacts to 0.01 acre of freshwater marsh and 0.03 acre of non-wetland Waters of the U.S. and temporary impacts to 0.03 acre of non-wetland Waters of the U.S. through realignment of the channel through the site (Table D-1). The permanent impacts would be significant because Waters of the U.S. are regulated by the federal government and wetlands/streambeds are regulated by the state government through the aforementioned regulations.

Table D-1 CORPS AND CDFG JURISDICTIONAL IMPACTS (acre)					
VEGETATION EXISTING IMPACTS					
COMMUNITY/HABITAT	EAISTING	Permanent	Temporary		
Wetlands					
Southern willow scrub	0.02	0.00	0.00		
Freshwater marsh	0.04	0.01	0.00		
Disturbed wetland	0.08	0.00	0.00		
Non Wetlands					
Drainage (ephemeral and intermittent)/ Streambed	0.05	0.03	0.03*		
TOTAL	0.19	0.04	0.03		

^{*}Temporary impacts are not considered significant and do not require mitigation

MITIGATION

- Impact D-1 Implementation of the proposed project would impact 0.07 acre of Corps and CDFG jurisdictional areas.
- MM D-1 Permanent impacts to 0.01 acre of Corps and CDFG jurisdictional wetlands shall be mitigated at a 3:1 ratio, and 0.03 acre of non-wetland Waters of the U.S. shall be mitigated at a 1:1 ratio for a total of 0.06 acre of required mitigation (Table D-2). Temporary impacts to 0.03 acre of Corps and CDFG jurisdictional non-wetland Waters of the U.S. are not considered significant and would not require mitigation (Table D-1). Mitigation shall include on-site riparian habitat preservation and enhancement and purchase of 0.5 acre of wetland enhancement credit at the Rancho Jamul Mitigation Bank. Evidence that all applicable Clean

Water Act permits and a Streambed Alteration Agreement have been obtained shall be provided to the County of San Diego (County) prior to issuance of any

grading permit.

Table D-2 CORPS AND CDFG JURISDICTIONAL MITIGATION SUMMARY					
VEGETATION IMPACT MITIG					
COMMUNITY/HABITAT	S	Ratio	Required		
Wetlands					
Freshwater marsh	0.01	3:1	0.03		
Non-wetlands					
Drainage (ephemeral and intermittent)/ Streambed	0.03	1:1	0.03		
TOTAL	0.04		0.06		

Pursuant to Corps, CDFG, and Regional Water Quality Control Board requirements, the existing channel and remaining wetland resources shall be protected by placement into a County flowage easement and potential additional easements. After partial realignment of some of the non-wetland portions of the drainage, the drainage would have all non-native species removed, and native species would be substituted to enhance and maintain the habitats and the functions and services they provide. The County flowage easement would be separated from residential uses by fences in the rear of the affected yards.

Weeding would be performed initially under direction of a habitat restoration specialist and subsequently by the homeowners' association landscape maintenance staff. When added to the purchase of 0.5 acre of wetland enhancement credit from the Rancho Jamul Mitigation Bank, this preservation and enhancement results in a significant net gain of both wetland resources and functions and services. Details of the enhancement and weeding program will be determined in consultation with the agencies during the wetland permitting process.